

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 25 JUL 2005

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Applicant's or agent's file reference PA134956/PCT	<b>FOR FURTHER ACTION</b> See Form PCT/PEA/416	
International application No. PCT/IB2004/000965	International filing date (day/month/year) 31.03.2004	Priority date (day/month/year) 31.03.2003
International Patent Classification (IPC) or national classification and IPC H04Q7/38		
Applicant KAHN, Ari		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ sent to the applicant and to the International Bureau) a total of 5 sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the opinion

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability


☐ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☒ Box No. VIII Certain observations on the international application

Date of submission of the demand  31.01.2005	Date of completion of this report  22.07.2005
Name and mailing address of the International preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Ohanovici, Z-C  Telephone No. +49 89 2399-8035



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/IB2004/000965

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**Box No. I Basis of the report**

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1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

1-11 as originally filed

**Claims, Numbers**

1-23 as originally filed

**Drawings, Sheets**

1/2-2/2 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	2-10,12-23
	No: Claims	1,11
Inventive step (IS)	Yes: Claims	
	No: Claims	1-23
Industrial applicability (IA)	Yes: Claims	1-23
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item V.**

1. With regard to present claim 1 document EP 1 085 738 A (hereinafter referred to as D1) discloses a method of operating a communication system comprising a network infrastructure (figure 1: 124, 126, 110) and a plurality of telephone terminals (figure 1: 102, 104, 130) the method comprising:
  - allocating a telephone number (Abstract: "Virtual destination number") to each of a plurality of subscribers (Abstract: "calling card account subscribers");
  - recording an identity code (paragraph [0020]: "stored PIN"), associated with each subscriber in a database of the network infrastructure (paragraph [0026]: "data-base contains a VDN mapping table", figure 1: 118);
  - receiving data, entered via a telephone terminal corresponding to the identity code of a subscriber (paragraph [0027]: "customer enters the calling card number with the PIN", claim 7: "input telephonic devices"); and
  - enabling the telephone terminal (claim 7: "telephone call is authorized") to make calls emanating from and to receive calls (paragraph [0027]: "to make a phone ...") made to the telephone number of the subscriber (paragraph [0026]: "VDN is a telephone number for identifying a telephone customer..."), thereby effectively converting the telephone terminal temporarily to a personal telephone of the subscriber (paragraphs [0009], [0027], the telephone when using a calling card and an associated VDN will turn to a personal telephone since the VDN belongs to the user thus it is personal).

Hence all features of claim 1 are known from D1.

The above objections could be based also on the disclosure of document US 6 085 081 A (hereinafter referred as D2). Document D2 describes (see: abstract, figure 1, columns 5-6, lines 20-37) a method and a communication system in which the user identification is allocated dynamically. The connection can be debited during the call or immediately after its termination. A smart card stores user specific information.

- The personal identity code is also stored on the smart card.
2. Furthermore, dependent claims 2 to 10 do not appear to contain any additional features which in combination with the features of any claim to which they refer, involve an inventive step for the reason that the subject-matter of the claims is in principle directly derivable from the disclosure of document D1 (for claim 2 see: paragraphs [0014]: "keypads", [0027], for claim 3 see: paragraph [0016]: "card reader integrated into the telephone terminals", for claim 4 see: paragraph [0003]: "magnetic stripe", for claim 5 see: paragraph [0003]: "number printed on the calling card", paragraph [0015]: "card number plus PIN", for claims 6 to 10 see: paragraphs: [0002]: "Pre-paid", "Post-paid", [0018]: "account status information", [0022]: "set up an account").
  3. Document D1 discloses also a system executing the method of claim 1 (see also the reasoning from paragraph 1) wherein a control center (see: paragraph [0018]: "service control point") with an associated database stores data corresponding to telephone numbers allocated to the subscribers (see: paragraph [0018]: "SCP has... database storing calling card numbers..."). Therefore the subject-matter of independent claim 11 is also not novel (Article 33(2) PCT).
  4. The subject-matter of dependent claims 12 to 16 is not inventive for the same reasons as in paragraph 2 above. The token reader of claim 15 executes the steps of using a prepaid card, well known in the prior art and also disclosed in D1. (see paragraph [0002]).
  5. The subject-matter of claims 17 to 23 is a data storage token storing a telephone number, identity code (PIN), user information, credit value. These features are also disclosed in D1 (see reasoning in paragraphs 2 and 4 above). Therefore the subject-matter of claims 17 to 23 is also not inventive.

Re item VII.

The feature "converting the telephone terminal temporarily to a personal telephone of the subscriber" has no technical character.

- 12 -

### CLAIMS

1. A method of operating a communication system comprising a network infrastructure and a plurality of telephone terminals, the method comprising:

allocating a telephone number to each of a plurality of subscribers;

recording an identity code associated with each subscriber in a database of the network infrastructure;

receiving data, entered via a selected telephone terminal, corresponding to the identity code of a subscriber; and

enabling the telephone terminal to make calls emanating from and to receive calls made to the telephone number of said subscriber, thereby effectively converting the telephone terminal temporarily to a personal telephone of said subscriber.

2. A method according to claim 1 comprising entering data via a keypad of the telephone terminal.
3. A method according to claim 1 comprising entering data from a data storage token via a token reader associated with the telephone terminal.
4. A method according to claim 3 wherein the token reader is a smart-card reader or inductive card reader.
5. A method according to claim 3 or claim 4 wherein the data storage token carries data including the subscriber's telephone number and identity code.

Amended Claims 31 January 2005

AMENDED SHEET

- 13 -

6. A method according to any one of claims 1 to 5 wherein the enabling of the telephone terminal to make calls includes the enabling of billing of the subscriber for calls made from the enabled telephone terminal.
7. A method according to any one of claims 1 to 6 wherein the subscriber has an account with the operator of the communications network which can be billed for calls made.
8. A method according to claim 7 wherein the account is a prepaid account.
9. A method according to claim 7 wherein the account is a credit account.
10. A method according to any one of claims 1 to 9 wherein the subscriber has a data storage token storing a credit value, the telephone terminal being operable to read the credit value from the token, to enable the telephone terminal if the credit value exceeds a predetermined value, and to reduce the credit value according to the cost of the calls made.
11. A communication system comprising:
  - a network infrastructure including a plurality of network nodes through which telephone terminals can access the network infrastructure;
  - a control center with an associated database, the database storing data corresponding to telephone numbers allocated to subscribers to the system and respective subscriber identity codes, the control center being operable, on receipt

Amended Claims 31 January 2005

AMENDED SHEET

- 14 -

of a valid identity code, to transmit a terminal enabling signal; and

a plurality of telephone terminals, each telephone terminal being operable to receive data corresponding to the identity code of a subscriber to the system and to transmit said data to the control center via a network node, the telephone terminal being enabled, in response to receipt of the terminal enabling signal by the respective network node, to make calls emanating from and to receive calls made to the subscriber's telephone number via the network infrastructure, so that the telephone terminal is effectively converted temporarily to a personal telephone of said subscriber.

12. A communication system according to claim 11 wherein each telephone terminal includes a token reader arranged to read data from a data storage token presented by a subscriber.
13. A communication system according to claim 12 wherein the token reader is a smart card reader or an inductive card reader.
14. A communication system according to any one of claims 11 to 13 including a billing center which monitors calls made by subscribers and charges the calls to subscribers' accounts.
15. A communication system according to any one of claims 11 to 14 wherein at least some of the terminals include a token reader/writer operable to read a credit value from a data storage token presented by a subscriber, and a processor operable to enable the telephone if the credit value exceeds a predetermined value and to cause the token reader/writer to reduce the credit value according to the cost of calls made.

Amended Claims 31 January 2005



- 15 -

16. A communication system according to claim 15 wherein the token reader is a magnetic card reader, an optical card reader, a smart card reader, or a non-contact card reader such as an inductive card reader.
17. A data storage token for use in a communication system according to any one of claims 11 to 16, the token comprising:
  - a substrate;
  - a data storage element for storing data defining a telephone number allocated to a subscriber to the system; and
  - an interface operable to transfer data to a telephone terminal of the system to identify the subscriber to the system.
18. A data storage token according to claim 17 wherein the data storage element is arranged to store, in addition to data defining the subscriber's telephone number, data defining an identity code associated with the subscriber.
19. A data storage token according to claim 18 wherein the identity code takes the form of a user-selected personal identity number (PIN) or a similar security code.
20. A data storage token according to any one of claims 17 to 19 which is further arranged to store data defining user information to be transmitted to the recipient of a call made by the subscriber, to identify the subscriber to the recipient.
21. A data storage token according to claim 20 wherein the user information is determined by the subscriber.

Amended Claims 31 January 2005

AMENDED SHEET

- 16 -

22. A data storage token according to any one of claims 17 to 21 wherein the data storage element stores data corresponding to a credit value, the interface being operable to increase or decrease the credit value.
23. A data storage token according to any one of claims 17 to 22 comprising a smart card or an inductive data storage card.

Amended Claims 31 January 2005

AMENDED SHEET